

II. RESPONSE TO OFFICE ACTION

A. Status of the Claims

Claims 1-49 were pending at the time of the Action. Claims 1-8, 10-11, and 22-49 stand rejected, and claims 9 and 12-21 are objected to. Claims 2, 5, 7, 9-10, 12-13, 15-16, 20-21, and 27-34 have been canceled, claims 1, 3, 4, 6, 8, 11, 14, 17-19, 22-26, 35-36, 41, and 44 have been amended in the Amendment contained herein, and claims 50-109 have been added. No new matter is added by the Amendment and new claims, and support for the Amendment and new claims can be found in the specification and claims as originally filed. Therefore, claims 1, 3-4, 6, 8, 11, 14, 17-19, 22-26, 35-49, and 50-109 are pending after entry of the Amendment.

B. The Obviousness Rejections Are Overcome

1. Claims 1, 3-4, 6, 8, 11, 22-26, and 35-49 are not Obvious Over JP 60028912 in View of Lim

Claims 1, 3-4, 6, 8, 11, 22-26, and 35-49 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Japanese Patent No. JP 60028912 (JP ‘912) in view of Lim et al. (US 6,461,391) (“Lim”). Applicants traverse this rejection.

The Action has not established a *prima facie* case of obviousness. In order to establish a *prima facie* case of obviousness, the Action must establish each one of the following: (1) there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings; (2) there must be a reasonable expectation of success; and (3) the prior art reference (or references when combined) must teach or suggest all the claim limitations. MPEP § 2142; *see also In re Vaeck*, 947 F.2d 488 (Fed. Cir. 1991). If any one of the three elements is missing, a *prima facie* case of obviousness cannot be established. In this case, **all three** elements are missing, and thus the rejection of claims 1, 3-4, 6, 8, 11, 22-26, and 35-49 under § 103(a) is improper and should be withdrawn.

a. The References Do Not Teach or Suggest All the Claim Limitations

Applicants note that independent claim 1 (which all of the other rejected claims depend from or incorporate by reference) has been amended herein, in part, to incorporate some or all of the limitations from claims 5, 7, 12, 13, 15, and 16. The limitations imported from claims 12, 13, 15, and 16 involve claimed formulae (III) and (IV). Applicants note that para-phenylenediamine compounds of the claimed formulae (III) and (IV) are not taught or disclosed by the prior art (including Lim or JP ‘912), a fact acknowledged by the Action at p. 5. For at least this reason, the obviousness rejection is improper and should be withdrawn, as a *prima facie* case of obviousness does not exist when the prior art references fail to teach or suggest each and every limitation of the claims. See *In re Royka*, 490 F.2d 981 (CCPA 1974); MPEP § 2143.03.

b. There is No Motivation to Combine the References

The Action fails to establish that there is a motivation to combine the teachings of JP ‘912 with those of Lim. When obviousness is based on the teachings of multiple prior art references, the Action must establish some “suggestion, teaching, or motivation” that would have led a person of ordinary skill in the art to combine the relevant prior art teachings in the manner claimed. See *Tech Air, Inc. v. Denso Mfg, Mich, Inc.*, 192 F.3d 1353, 1358-60 (Fed. Cir. 1999); *Pro-Mold & Tool Co. v. Great Lakes Plastics, Inc.*, 75 F.3d 1568, 1572 (Fed. Cir. 1996).

The Action contends that a motivation to combine exists in this case because “a person of ordinary skill in the art would be motivated to substitute para-phenylenediamine oxidation bases of JP ‘912 with the cationic tertiary phenylenediamines of Lim for providing good oxidation coloring of hair and would expect such a composition to have similar properties to those claimed, absent unexpected results. The Action, p. 4. It appears that the Action is relying on hindsight to find a motivation to combine these references. The use of hindsight, however, is not appropriate to establish a motivation to combine. See *W.L. Gore Assoc., Inc. v. Garlock, Inc.*, 721 F.2d 1540 (Fed. Cir. 1983). As stated in MPEP § 2143.01, “The mere fact that references can be combined or

modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination.”

The present specification describes obtaining compositions for dyeing keratinous fibres capable of overcoming the disadvantages linked to the use of cationic tertiary paraphenylenediamines containing a pyrrolidine ring in an oxidation dyeing composition and, in particular, of leading to colorations with natural shades which are varied, chromatic, aesthetic, intense and relatively unselective (page 3, lines 13-37). This technical problem has been solved by using in a dyeing composition at least one particular cationic paraphenylenediamine containing a pyrrolidine ring and at least one carbohydrate selected from particular monosaccharides or disaccharides.

JP ‘912 discloses a liquid composition for dyeing hair, containing an amine-type oxidizing dye such as aminonitrophenol and a monosaccharide or a disaccharide, having the advantages of a two-pack type hair dye and extremely low adverse effect to the skin. This reference does not describe or suggest the use of a specific cationic tertiary paraphenylenediamine containing a pyrrolidine ring in such a dyeing composition. In fact, this reference only mentions the use of an aminonitrophenol, which is a conventional amine oxidizing dye whose structure is very different from the cationic tertiary paraphenylenediamine of the present claims.

Furthermore, JP’ 912 does not teach that a dyeing composition containing an amine type oxidizing dye in association with monosaccharide or disaccharide is capable of leading to colorations with shades which are natural, relatively unselective, or intense. In fact, the only advantages described in JP ‘912 are that such a dyeing composition has the advantage of a two-pack hair dye and has extremely low adverse effect to the skin.

Lim discloses various quaternized pyrrolidine compounds of formula (I), which are suitable primary intermediates for hair coloring compositions and systems for providing good oxidative coloration of hair and for providing acceptable light fastness, fastness to shampooing and to

permanent wave treatment, and are also suitable for providing a wide variety of different color shades with various combinations of primary intermediates and coupler compounds. Lim also mentions that the quaternary pyrrolidine compounds disclosed therein may be employed as the sole primary intermediate in hair coloring compositions (column 3, line 51) or with one or more suitable primary intermediates such as paraphenylenediamine derivatives, paraaminophenol derivatives, o-aminophenol derivatives, and heterocyclic derivatives (column 3, line 54 to column 4, line 41).

In addition, Lim discloses that quaternized pyrrolidine compounds alone or in combination with the above mentioned primary intermediates may be employed with couplers in hair coloring compositions such as resorcinol and naphthol derivatives, meta-phenylenediamines derivatives, meta-aminophenols derivatives, and heterocyclic derivatives (column 4, line 56 to column 5 line 63). Further, Lim discloses a very long list of different combinations of hair coloring components employing quaternized pyrrolidine primary intermediates with additional primary intermediates or couplers. For example, Lim discloses at least 116 combinations in columns 31 to 66. In spite of this very long list of additional compounds that could be used with the quaternized pyrrolidine compounds in a dyeing composition illustrated by the various combinations disclosed, Lim does not describe or suggest that it is conceivable to use a carbohydrate selected from particular monosaccharides or disaccharides in association with quaternized pyrrolidine compounds in order to obtain colorations with natural, intensive, and relatively unselective shades.

Therefore, there is no motivation in either reference for one ordinary skill in the art to incorporate specific quaternized pyrrolidine compounds having a chemical structure very different from the conventional amine type oxidizing dye such as aminonitrophenol in a dyeing composition used in JP '912 in order to achieve what Applicants have done. In fact, neither JP '912 nor Lim teaches that quaternized pyrrolidine compounds would exhibit the same behavior as a conventional amine type oxidizing dye such as aminonitrophenol in terms of colorations in a dyeing composition comprising specific monosaccharides or disaccharides. Thus, there is no motivation for a person

skilled in the art to replace a conventional amine type oxidizing dye with a specific cationic tertiary paraphenylenediamine.

In addition, dyeing compositions comprising quaternized pyrrolidine compounds such as the compositions used in Lim are not capable of leading to colorations with shades which are natural, relatively unselective, and intense. In fact, Lim does not disclose the disadvantages linked to the use of cationic paraphenylenediamines containing a pyrrolidine ring in a dyeing composition and, even less, the possible combinations which are conceivable in order to overcome these disadvantages.

Therefore, one of skill in the art would not be motivated to replace a conventional amine type oxidizing agent with a cationic tertiary paraphenylenediamine in the dyeing composition used in JP '912 in order to obtain advantages which are not attained with the same cationic tertiary paraphenylenediamine used alone.

Because the Action fails to establish the existence of a suggestion, teaching, or motivation that would have led a person of ordinary skill in the art to combine the relevant prior art teachings in the manner claimed, a *prima facie* case of obviousness has not been established. Applicants respectfully request that the rejection of claims 1, 3-4, 6, 8, 11, 22-26, and 35-49 as being obvious over JP '912 in view of Lim be reconsidered and withdrawn.

c. There is No Reasonable Expectation of Success

"The prior art can be modified or combined to reject claims as *prima facie* obvious as long as there is a reasonable expectation of success." MPEP § 2143.02 (citing *In re Merck & Co., Inc.*, 800 F.2d 1091 (Fed. Cir. 1986)). The Action fails to show any evidence that there would be a reasonable expectation of success in combining the teachings of JP '912 and Lim. For this reason alone, a *prima facie* case of obviousness has not been established.

As stated in the present specification (page 3, lines 4-14), dyeing compositions comprising quaternized pyrrolidine compounds such as the compositions used in Lim are not capable of leading to colorations with shades which are natural, relatively unselective, and intense. Thus, contrary to

the assertions of the Action, there would not be a reasonable expectation of success in combining the teachings of JP '912 and Lim.

For this reason, a *prima facie* case of obvious has not been established. Applicants respectfully request that the rejection of claims 1, 3-4, 6, 8, 11, 22-26, and 35-49 as being obvious over JP '912 in view of Lim be reconsidered and withdrawn.

C. Conclusion

Applicants believe that the present document is a full and complete response to the Office Action dated August 5, 2005. The present case is in condition for allowance, and such favorable action is respectfully requested.

III. REQUEST FOR EXTENSION OF TIME

Pursuant to 37 C.F.R. § 1.136(a), Applicants petition for an extension of time of two months to and including January 5, 2006, in which to respond to the Office Action dated August 5, 2005. Pursuant to 37 C.F.R. § 1.17(a)(2), a check in the amount of \$450.00 is enclosed, which is the fee for a two-month extension of time for a large entity. If the check is inadvertently omitted, or should any additional fees under 37 C.F.R. §§ 1.16 to 1.21 be required for any reason relating to the enclosed materials, or should an overpayment be included herein, the Commissioner is authorized to deduct or credit said fees from or to Fulbright & Jaworski Deposit Account No. 50-1212/LORE:008US.

The Examiner is invited to contact the undersigned Attorney at (512) 536-3035 with any questions, comments or suggestions relating to the referenced patent application.

Respectfully submitted,



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